

SAFETY DATA SHEET



1. Identification

Covestro LLC
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Pittsburgh, PA 15205
USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC: (800) 424-9300
INTERNATIONAL: (703) 527-3887

NON-TRANSPORTATION

Emergency Phone: Call Chemtrec
Information Phone: (844) 646-0545

Product Name: VORSTUFE 2342
Material Number: 05410193
Chemical Family: Polyester Polyol
Use: Raw material for coatings, adhesives, sealants, or elastomers in industrial applications

2. Hazards Identification

GHS Classification

Skin sensitisation: Category 1

GHS Label Elements

Hazard pictograms:



Signal word: Warning

Hazard statements: May cause an allergic skin reaction.

Precautionary statements:

Prevention:

Avoid breathing dust, mist, gas, vapors or spray.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves.

Response:

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical attention.
Wash contaminated clothing before reuse.

Disposal:

Dispose of contents and container in accordance with existing federal, state, and local environmental control laws.

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3. Composition/Information on Ingredients

Hazardous Components

Weight Percent	Components	CAS-No.
95 - 100%	Polyester polyol	CAS# is a trade secret

The specific chemical identity and/or exact percentage of component(s) have been withheld as a trade secret.

4. First Aid Measures

Most Important Symptom(s)/Effect(s)

Acute: May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash.

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Firefighting Measures

Suitable Extinguishing Media: Carbon dioxide (CO₂), Dry chemical, Foam, water spray for large fires.

Unsuitable Extinguishing Media No Data Available

Fire Fighting Procedure

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

Hazardous Decomposition Products

By Fire: ; Carbon Dioxide; Carbon Monoxide other aliphatic fragments which have not been determined

6. Accidental Release Measures

Spill and Leak Procedures

Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Use appropriate

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personal protective equipment during clean up. Evacuate and keep unnecessary people out of spill area.

7. Handling and Storage

Handling/Storage Precautions

Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Keep container closed when not in use. Material is hygroscopic and may absorb small amounts of atmospheric moisture. If contamination with isocyanates is suspected, do not reseal containers. Avoid breathing dust, vapor, or mist. Avoid contact with eyes. Avoid contact with skin or clothing.

Storage Period:

6 Months: after receipt of material by customer

Storage Temperature

Maximum: 50 °C (122 °F)

Substances to Avoid

Oxidizing agents, Isocyanates

8. Exposure Controls/Personal Protection

The recommendations in this section should not be a substitute for a personal protective equipment (PPE) assessment performed by the employer as required by 29 CFR 1910 Subpart I.

Exposure Limits

Any component which is listed in section 3 and is not listed in this section does not have a known ACGIH TLV, OSHA PEL or supplier recommended occupational exposure limit.

Industrial Hygiene/Ventilation Measures

Use local and general exhaust ventilation to control levels of exposure.

Respiratory Protection

None required under normal conditions of use.

Hand Protection

Ensure gloves remain in good condition during use and replace if any deterioration is observed.

Permeation resistant gloves.

Eye Protection

Chemical safety goggles or safety glasses with side-shields.

Skin Protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product.

9. Physical and Chemical Properties

State of Matter:	liquid
Color:	Colorless
Odor:	slight inherent odour
Odor Threshold:	No Data Available
pH:	No Data Available
Boiling Point:	> 300 °C (572 °F) @ 1,013 hPa (DIN 53171)
Flash Point:	ca. 214 °C (417.2 °F) @ 1,013 hPa (DIN EN ISO 2719)
Evaporation Rate:	No Data Available
Lower explosion limit:	No Data Available
Upper Explosion Limit:	No Data Available
Vapor Pressure:	No Data Available
Vapor Density:	No Data Available
Density:	ca. 0.95 g/cm ³ @ 20 °C (68 °F) (DIN 51757)
Relative Vapor Density:	No Data Available
Specific Gravity:	No Data Available
Solubility in Water:	0.0058 g/l @ 20 °C (68 °F) (OECD Test Guideline 105)
Partition Coefficient: n-octanol/water:	No Data Available
Auto-ignition Temperature:	ca. 380 °C (716 °F) (DIN 51794)
Decomposition Temperature:	No Data Available
Dynamic Viscosity:	ca. 400 mPa.s @ 20 °C (68 °F) (DIN 53019)
Kinematic Viscosity:	No Data Available
Pour point:	ca. -12 °C (10.4 °F) (ISO 3016)
Self Ignition:	not applicable

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerisation does not occur.

Stability

Stable

Materials to Avoid

Oxidizing agents, Isocyanates

Hazardous Decomposition Products

By Fire: Carbon Dioxide; Carbon Monoxide; other aliphatic fragments which have not been determined

11. Toxicological Information

Likely Routes of Exposure: Skin Contact
Eye Contact

Health Effects and Symptoms

Acute: May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash.

Chronic: Not expected to cause adverse chronic health effects.

Toxicity Data for: VORSTUFE 2342

Data is based on the product.

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Toxicity Data for: Polyester polyol

Acute Oral Toxicity

LD50: > 5,000 mg/kg (rat) (OECD Test Guideline 423)

Acute Dermal Toxicity

LD50: > 2,000 mg/kg (rat) (OECD Test Guideline 402)

Skin Irritation

rabbit, OECD Test Guideline 404, slight irritant
Studies at the product.

Eye Irritation

rabbit, OECD Test Guideline 405, slight irritant
Studies at the product.

Sensitization

Skin sensitization (local lymph node assay (LLNA)):: positive (Mouse, OECD Test Guideline 429)
Studies at the product.

Mutagenicity

Genetic Toxicity in Vitro:

Point mutation in mammalian cells (HPRT test): No indication of mutagenic effects.

Studies at the product.

Salmonella/microsome test (Ames test): No indication of mutagenic effects.

Studies at the product.

Micronucleus test: No indication of mutagenic effects.

Studies at the product.

Carcinogenicity:

No carcinogenic substances as defined by IARC, NTP and/or OSHA

12. Ecological Information

Ecological Data for: VORSTUFE 2342

Data is based on the product.

May be hazardous to the aquatic environment.

Ecological Data for Polyester polyol

Biodegradation

72 %, Exposure time: 28 d, Not readily biodegradable.

Studies at the product.

78 %, Exposure time: 28 d, Inherently biodegradable.

Studies at the product.

Acute and Prolonged Toxicity to Fish

LC50: > 100 mg/l (Danio rerio (zebra fish), 96 h)

Studies at the product.

Acute Toxicity to Aquatic Invertebrates

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EC50: > 100 mg/l (Daphnia magna (Water flea), 48 h)
Studies at the product.

Toxicity to Aquatic Plants

EC50: > 100 mg/l, (Scenedesmus quadricauda (Green algae), 72 h)
Studies at the product.

Toxicity to Microorganisms

EC50: > 1,000 mg/l, (activated sludge)
Studies at the product.

13. Disposal Considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations.

14. Transportation Information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

US. Toxic Substances Control Act:

To the best of our knowledge, this material is not included in the Toxic Substances Control Act (TSCA) Inventory, and is defined as a new chemical substance which cannot be imported or manufactured for commercial purposes without complying with the Pre-manufacture Notice (PMN) requirements codified at 40CFR Part 720. Therefore, we are providing you a small quantity (as defined at 40CFR Part 720.36 (a) (1)) of this product with the understanding it is to be used solely in the course of Research and Development (R&D), as defined in Section 5 (h) (3) of TSCA and 40 CFR Part 720.

No substances are subject to TSCA 12(b) export notification requirements.

US. EPA CERCLA Hazardous Substances (40 CFR 302) Components:

None

SARA Section 311/312 Hazard Categories:

Refer to hazard classification information in Section 2.

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**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III
Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A) Components:**
None

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III
Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required Components:**
None

**US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes
and Appendix VIII Hazardous Constituents (40 CFR 261):**
Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous waste.

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

<u>Weight percent</u>	<u>Components</u>	<u>CAS-No.</u>
>=95%	Polyester polyol	CAS# is a trade secret

California Proposition 65 List:
None.

CFATS (Chemical Facility Anti-Terrorism Standards) Chemicals

To the best of our knowledge, this product does not contain Appendix A Chemicals of Interest (COI), at or above the Screening Threshold Quantity (STQ), as defined by the Department of Homeland Security Chemical Facility Anti-terrorism Standard (CFATS, 6 CFR Part 27).

Based on information provided by our suppliers, this product is considered "DRC Conflict Free" as defined by the SEC Conflict Minerals Final Rule (Release No. 34-67716; File No. S7-40-10; Date: 2012-08-22).

16. Other Information

The method of hazard communication for Covestro LLC is comprised of product labels and safety data sheets. Safety data sheets for all of our products and general product declarations are available for download at www.productsafetyfirst.covestro.com.

Contact:	Product Safety Department
Telephone:	(412) 413-2835
SDS Number:	112000016905
Version Date:	09/13/2018
SDS Version:	1.3

Information contained in this SDS is believed to be accurate but is furnished without warranty, express or implied, including warranties of merchantability or fitness for a particular purpose. The information relates only to the specific material designated herein. Covestro LLC. assumes no legal responsibility for use of or reliance upon the information in this SDS and such information shall in no case be considered a part of our terms and conditions of sale. The user is responsible for determining whether the Covestro product is

suitable for user's method of use or application. Covestro is not liable for any failure to observe the precautionary measures described in this SDS or for any misuse of the product.